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EXAMINER

YAO, SAMCHUAN CUA

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| ART UNIT | PAPER NUMBER |
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1733

DATE MAILED: 03/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/643,782 | SCHONEBECK, HORST | |
| | Examiner | Art Unit | |
| | Sam Chuan C. Yao | 1733 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 20-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 20-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7, 20-27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 1,335,098 in view of Hannes (US 3,620,906)

With respect to claims 1, 6, and 20-21 GB '098 teaches a process of making a resin impregnated article, the article is "*suitable for a wide range of uses such as for making body elements for motor cars and aircraft (seats, doors, panels, crash pads), boat hulls, furniture and skis*" (emphasis added), the process comprising impregnating a open-cell foam with a thermosetting resin; applying a reinforcing fibers such as glass fibers onto a surface of the resin impregnated foam; compressing the reinforcing fibers and the resin impregnated foam together to expel the resin in the foam into the reinforcing fibers and form an intermediate product; and, applying a liquid polyurethane foaming composition onto a surface of the intermediate product so that a small amount of the composition penetrates into the foam to enhance anchorage between the polyurethane foam and the intermediate product (page 1 line 14 to page 2 line 78; example). Although a resin impregnated foam is not expressly characterized as a barrier layer, the

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resin impregnated foam is taken to be functionally equivalent to a barrier layer, because as noted above, only small amount penetrate into the foam.

It is unclear, however, whether an outer reinforcing fiber (e.g. fiberglass) layer taught by GB '098 can reasonably be considered as a decorative layer. In any event, it would have been obvious in the art, motivated by the desire to enhance the aesthetic appearance of a resultant impregnated article, to color a fiberglass covering layer taught by GB '098, because: it is a common practice in the art to form an automobile component (i.e. acoustical panel or automobile headliner) which is similar to an interior automobile component suggested by GB '98, where a resultant component includes a colored fiberglass decorative covering fabric as exemplified in the teachings of Hannes (col. 3 lines 1-22; col. 4 lines 13-23; col. 5 lines 1-12; claims 8-13; figures 1-3).

Alternatively, it would have been obvious in the art to substitute a fiberglass covering web with a porous fiberglass decorative covering cloth in a process taught by GB '098 to make an interior automobile component, because Hannes teaches providing a porous decorative fiberglass covering cloth in forming an acoustical panel or automobile headliner (col. 1 lines 8-35 col. 3 lines 1-22; col. 4 lines 13-23; col. 5 lines 1-12; claims 8-11; figures 1-3) in order to enhance the aesthetic appearance of a finished acoustical panel or automomobile headliner.

With respect to claims 2-3, a resin impregnated foam and reinforcing fibers are glued together via a resin expelled from the foam to form a laminated intermediate product

With respect to claim 4-5 and 7, it is conventional in the art to apply a randomly distributed reinforcing fibers into a foaming composition to enhance the structural strength of a resultant foam.

With respect to claim 22, an open-celled foam is by its nature is intrinsically air-permeable. It is not expected that a resin impregnation of an open-celled foam in a process suggested by GB '098 would completely seal the open-celled foam. Otherwise, "*a small amount*" of an a polyurethane resin penetration into the resin-impregnated open-celled foam would have been possible, if the resin-impregnated open-celled foam is completely sealed.

With respect to claim 23, in light of the similarity of the production processes between GB' 098 and the presently claimed invention, a resultant resin impregnated article of GB '098. Note that, a resin-impregnated glass fiber mat taught by Hannes is porous (col. 1 lines 9-16).

With respect to claims 26-27, it is old in the art of making a panel or automobile interior component to provide a supporting reinforcing fibrous web onto an underside surface of a foamable resin. Moreover, it is also old in the art to provide a spacer within a foamable resin so that a desired foam layer can be maintained. For these reasons, these claim would have been obvious in the art.

With respect to claim 29, as noted above, a resultant article of GB '098 is "*suitable for a wide range of uses such as for making body elements for motor cars and aircraft (seats, doors, panels, crash pads), boat hulls, furniture and skis*" (emphasis added; page 2 lines 53-57). Moreover, as noted above, it is also

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conventional in the art to form an automobile roof decorative liner. It would have been obvious in the art to use a resultant article as an automobile roof liner. For this reason, the limitation in this claim would have been obvious in the art.

3. Claim 8 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references set forth in numbered paragraph 2 as applied to claim 7 or 24 above, and further in view of Bohm et al (US 6,499,797 B1).

It would have been obvious in the art to introduce glass fibers into a liquid foamable material as such is conventional in the art as exemplified in the teachings of Bohm et al (col. 3 line 65 to col. 4 line 2; col. 6 lines 6-34).

4. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over the references set forth in numbered paragraph 2 as applied to claim 1 above, and further in view of Kargarzadeh et al (US 5,230,855).

It would have been obvious in the art to embed a fastening device in a liquid foamable material during a foaming operation as such conventional in the art as exemplified in the teachings of Kargarzadeh et al (figure 2).

5. Claims 1-9 and 20-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB 1,335,098 in view of Rozek et al (US 6,204,209) or Applicant's Admitted Prior Art (AAPA).

Note: a decorative layer recited in these claims do not positively require to be a single layer only. Therefore, this layer reads on a decorative layer comprising a plurality of plies.

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The discussion of the GB '98 patent in numbered paragraph 2 is incorporated herein.

With respect to claims 1 and 24, as noted above, It is unclear, however, whether an outer reinforcing fiber (e.g. fiberglass) layer taught by GB '098 can reasonably be considered as a decorative layer. In any event, it would have been obvious in the art, motivated by the desire to enhance the aesthetic appearance of a resultant impregnated article, to apply a porous decorative fabric onto a fiberglass layer in forming the article taught by GB '098, because it is a common practice in the art to form an automobile component (i.e. automobile headliner) which is similar to an interior automobile component suggested by GB '98, where a porous decorative fabric is applied onto a fiberglass reinforcing layer as exemplified in the teachings of Rozek et al (abstract; col. 4 lines 47-58; col. 6 lines 1-15; figure 1) or AAPA (an amendment dated 01-18-05 on page 13 last paragraph).

With respect to claims 2-9, 20-23, and 25-29, for the same reasons set forth in numbered paragraphs 2-4, these claims would have been obvious in the art.

Response to Arguments

6. Applicant's arguments filed 01-18-05 have been fully considered but they are not persuasive.

As for Counsel's argument on pages 9-10 regarding secondary references being non-analogous art, Counsel's argument is moot in light of a new ground of rejection.

As for Counsel's assertion on page 13 that, *"the foam sheet does not and cannot represent a barrier layer to the foaming composition because it does not block the foaming layer from contacting an adjacent layer."*, Examiner strongly disagrees. As correctly noted by Counsel, *"[only] a small amount of composition will penetrate into the foam sheet and thereby improve anchorage of the polyurethane foam to the other layers"* (emphasis and word added). The purpose of having a small amount of a composition to penetrate into a foam sheet is *"to improve anchorage"* of a resultant polyurethane foam to a resin-impregnated open-celled foam. Nothing in the disclosure of GB '098, which remotely teaches a composition penetrating completely through a resin-impregnated open-celled foam. Moreover, there appears to be no discernable difference between a process taught by GB '098 and the claimed process on how a liquid foamable composition is applied to an open-celled foam. If an open-celled foam of the presently claimed invention acts a barrier to a liquid foamable composition, why wouldn't a resin impregnated open-celled foam suggested by GB '098 also functions as a barrier?

As for Counsel's argument on page 14 full paragraph 1 regarding the process taught by GB '098 being contrary to the claimed invention, it is respectfully submitted that the claimed invention as presently recited does not preclude expelling an impregnating resin in a foam sheet into a fibrous reinforcing layer. The recited claims (at best) only preclude a foamable resin that is applied to an open-celled foam from impregnating a fabric.

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Conclusion

In light of a new ground of rejection, this office action is made NON-FINAL.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Chuan C. Yao whose telephone number is (571) 272-1224. The examiner can normally be reached on Monday-Friday with second Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on (571) 272-1156. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sam Chuan C. Yao
Primary Examiner
Art Unit 1733

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03-21-05